



# DUO: Smart Noise Monitor



Sound level meter *and* Monitoring station!!



## 25 YEARS OF INNOVATION

01dB introduces DUO Smart Noise Monitor, the new generation of instruments and a breakthrough in the field of environmental noise assessment. DUO is completely modular and offers the most comprehensive range of options so to be able to use the same unit as sound level meter or a full-fledged noise monitoring station.

Using these options, DUO can be customized to achieve the correct configuration from the start to avoid additional costs. New requirements can be easily fulfilled by adding new options in the same unit.

A one-off requirement lasting a few months? 01dB offers a range of customer services, including monthly rental options and 01dB Web Monitoring services for medium term monitoring. Not only does 01dB provide its customers with the most innovative solution on the market, but it is also the most versatile, with an unrivalled range of services!

# DUO: Smart Noise Monitor

## Your projects, our solution



### A HOST OF INNOVATIONS

01dB has used the very best technology to create DUO, an innovative solution that meets the needs of each and every customer.

From the outset, DUO stands out for its high-quality finishing: easy to mount securely on a tripod thanks to its fastening profile, a soft touch rubber grip for easy handling and a colour display perfectly readable in sunlight. The best is yet to come: DUO features a one-of-its-kind waterproof microphone, is entirely weather-proof for use in all conditions, and has integrated GPS and WiFi/3G connectivity so that it can be operated remotely.

### A SMART SYSTEM

01dB brings to bear its expertise in environmental monitoring with the DUO software system, offering a remarkable range of functions: appropriate and relevant acoustic indicators, a smart system of event detection filters, continuous metrological audio recording, the facility to listen in remotely, automatic calibrator detection, electronic checks to ensure flawless metrology, etc. Class 1 IEC-61672 certification (for both reference directions: 0° and 90°) has been certified by the LNE, PTB and METAS laboratories, demonstrating the level of care taken by 01dB to ensure DUO's metrological quality.



# → Smart solutions for your projects

## EVENT DETECTION

Whenever an aircraft flies by, DUO automatically detects the event, encodes data and triggers an audio recording. This is possible thanks to a powerful system of customizable detection filters associated with user defined actions (markers, audio, TTL triggers, sending of text messages, etc.). This solution, unique to 01dB, makes it possible to monitor and detect acoustic events of any nature.



## LOCAL WEATHER STATION

Why did noise levels significantly exceed the annual average at this race circuit yesterday? The weather station connected via a single cable to DUO offers a possible answer: wind speeds exceeded 5 m/s all day! With DUO, 01dB provides an integrated solution to gain a better understanding of acoustic phenomena in sports and leisure activities.

*"01dB offers the most versatile solution on the market"*

## THE ONLY CHOICE IS DUO

Implementing an urban noise monitoring system and having to decide which and how many stations to use, can be a headache on a tight budget. With DUO, 01dB offers the most versatile solution on the market: a sound level meter that can also be used as a mobile or permanent noise monitoring station. No need to choose between different kinds of instruments: the only remaining question is which way to install DUO!





## ALWAYS ON THE ALERT!

Noise levels at construction sites must be monitored on a regular basis and any complaints must be dealt very quickly and effectively. With DUO, 01dB offers a high-performance alert system: a text message is sent when predefined limits are exceeded or when the battery is low, and notification emails are centrally managed by the 01dB Web Monitoring service. In addition, DUO security is ensured as an SMS is sent if the unit moves by a dozen of meters or so.



## ALWAYS UP TO DATE

Taking noise level measurements at industrial sites is a complex task, owing to factors such as multiple noise sources, variable operations taking place at the site, and the effect of weather conditions. With its integrated GPS, DUO allows performing localized and synchronized measurements, in order to identify the influence of the different noise sources at different time of the day.



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## EASY TO INSTALL

Wind farms are often installed in areas difficult to access. As a consequence, installation and remote monitoring constraints must be taken into consideration in the noise impact study.

DUO's all-in-one, all-weather design offers the perfect solution, with easy installation (no cables), a long battery lifetime (60 hours) and integrated 3G modem retrieve data directly, without leaving the office!

DUO also provides the core metrology for RoBin, a system dedicated to measuring sound power levels from wind turbines in accordance with IEC61400-11.

RoBin, designed and validated by expert acousticians, offers optimal flexibility on-site (wireless, one person operation, automated calculation and reporting, etc.).



## "À la carte" services

### 01dB Web Monitoring

Based on a fixed monthly subscription, 01dB offers a range of 01dB Web Monitoring services, from stations rental including 3G subscription to the cloud storage and dedicated and customized website. These services are also available to all customers who wish to use their DUO purchase within the context of an acoustic monitoring project.





# An innovative sound level meter A smart monitoring station

## All-in-One



### ACOUSTIC NOSE CONE 0°/90°

- ✓ Two reference directions 0° and 90° (configurable)
- ✓ IEC-61672 Class 1 certified by LNE, PTB and METAS

### WEATHERPROOF MICROPHONE

- ✓ G.R.A.S. exclusivity
- ✓ Calibrator automatic detection
- ✓ Self-check system based on charge injection

### INTEGRATED WIFI/3G MODEM

- ✓ Remote control
- ✓ Automatic downloading of data
- ✓ Text message notification on acoustic events
- ✓ Text message notification of operation problems

### INTEGRATED GPS ANTENNA

- ✓ Time synchronization
- ✓ Multi-point synchronized markers
- ✓ Localization

### COLOUR DISPLAY

- ✓ High definition
- ✓ Legible in sunlight

### 3-KEY KEYBOARD

- ✓ Ease of use
- ✓ Noiseless operation

### WATERPROOF METAL CASING

- ✓ Easy outdoor installation
- ✓ Treated against corrosion

### RUBBER SIDE GRIPS

- ✓ Improved grip

### BATTERY LIFETIME 60 HOURS

- ✓ Flexibility of use

### 2-128 GB MEMORY CARD

- ✓ Unlimited storage
- ✓ Appropriate acoustic indicators
- ✓ Metrological audio recording

### ACCESSORIES



Integral foam protection



DMK01 outdoor unit



Anti-theft mechanism



Weather station

## ACOEM

Smart monitoring, diagnosis & solutions

ACOEM offers comprehensive products and services comprising smart monitoring, diagnosis and solutions, drawing upon its unique expertise in the field of vibrations and acoustics.

ACOEM contributes to the improvement of:

- quality of life and risk prevention in urban and industrial environments
- productivity and the reliability of industrial processes
- the design of robust and high-performance products with low noise levels
- protection of sites, vehicles and people in hostile environments

With its O1dB, METRAVIB and ONEPROD brands, ACOEM works with decision-makers in industry, defence and the environment throughout the world.

For more information, visit our website at [www.acoemgroup.com](http://www.acoemgroup.com)



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